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Amendments to the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1. (Original) A process for the removal of arsine (AsH_3) from a hydrocarbon stream having an atmospheric boiling point lower than about 0 °C, by contacting the hydrocarbon stream with an adsorbent that contains elemental sulphur deposited on a support material.

2. (Currently amended) A process according to Claim 1, ~~characterized in that~~ wherein the hydrocarbon stream contains propane, propylene, ethane, ethylene, methane and/or acetylene

3. (Currently amended) A process according to ~~any one of Claims 1-2, characterized in that~~ claim 1, wherein the amount of sulfur is in the range between 2 and 25 wt. % relative to the total amount of sulfur and support material .

4. (Currently amended) A process according to ~~any one of Claims 1-3, characterized in that~~ Claim 1, wherein the support material is silica, alumina, silica/alumina, titania, zeolites, activated carbon and/or magnesia.

5. (Currently amended) A process according to Claim 4, ~~characterized in that~~ wherein the support material is activated carbon.

6. (Currently amended) A process according to ~~any one of Claims 1-5, characterized in that~~ Claim 1, wherein besides arsine, ~~also~~ mercury is also removed from the hydrocarbon stream.

7. (New) A process according to claim 2, wherein the amount of sulfur is in the range between 2 and 25 wt. % relative to the total amount of sulfur and support material .